

PATENT

Serial No.: 09/769,589

Atty. DKL No. SAR 13896

REMARKS

This is intended as a full and complete response to the Office Action dated August 11, 2004, having a shortened statutory period for response set to expire on November 11, 2004. Please reconsider the claims pending in the application for reasons discussed below.

I. Response to Examiner's Arguments

Applicant will address each item in Section 3 of the Response to Arguments section of the Final Office Action dated August 11, 2004, below.

Item 1

The Applicant again reiterates that Vinod fails to teach "determining a route comprising a trajectory of a first object having the same trajectory of at least one other object" as recited in claim 1 or "determining spatial patterns from said extracted motion information, where said spatial patterns comprise a route determined from said trajectory common to at least two objects" as recited in claim 16. Routes, as disclosed by Applicant's invention, represent the grouping or clustering of two or more trajectories having a common path.

Vinod only teaches tracking the movement of objects. The Examiner states that Vinod "discloses to obtain motions of multiple objects between successive frames using histograms." (See Final Office Action, Response to Arguments, Section 3) The Examiner also states that Vinod "further teaches to see if two objects are close to each other in time by analyzing their respective trajectories." (See Final Office Action, Response to Arguments, Section 3) Vinod does not teach determining a route comprising a trajectory of a first object having the same trajectory of at least one other object as positively claimed by Applicant.

The Examiner has conceded that Vinod does not teach the ability to obtain a trajectory of a first object having the same trajectory of at least one other object. (Final Office Action, Page 4, lines 15-16) The Examiner, however, concludes that one skilled in the art can determine, from the collected data of Vinod, if any of the trajectories are the same or they are different for the number of moving objects in the successive

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frames. The Examiner has still provided no evidence that the system of Vinod is necessarily configured such that a trajectory map must necessarily be used to obtain a route that is determined from said trajectory common to at least two objects. The Examiner is reminded that the standard of 35 U.S.C. § 102 is not that a reference's teaching can be modified to anticipate Applicant's invention. The cited reference must anticipate Applicant's invention by teaching all the elements and limitations of Applicant's claims. The Examiner's assertion that the trajectories can be determined from the collected data is not a proper application of a 35 U.S.C. § 102 rejection. The Examiner's position is basically using improper hindsight to reject the Applicant's invention.

Item 2

The Applicant again asserts that Cheng does not qualify as prior art. Applicant filed Provisional Application No. 60/190,819, on March 21, 2000. The present application claims priority from this provisional application. Since the provisional application was filed before the publication date of the Cheng reference (May 2000), Cheng may not properly be used as prior art.

The Applicant respectfully traverses the maintenance of a Final Office Action based on an improper reference. The Examiner described a presentation in an International Symposium in 11/1999 and welcomed the Applicant's representative to call the Examiner to discuss and request a faxed copy of the details of the symposium. The Applicant respectfully notes that the rejection is still based on the Cheng reference that was published in May 2000. As such, the Applicant reasserts that Cheng may not properly be used as prior art. The Examiner has not rejected the Applicant's claims in view of the technical documents submitted at the alleged symposium. The Applicant respectfully requests that the Examiner provide a rejection based on the technical documents submitted at the alleged symposium and provide the Applicant with a copy of the technical documents of the symposium with that rejection. In doing so, the Examiner must withdraw the finality of this Final Office Action.

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II. Rejection of claims 1, 3-8, 10, 14, 16, 17, and 19-21 under 35 USC § 102

Claims 1, 3-8, 10, 14, 16, 17, and 19-21 stand rejected under 35 USC § 102(b) as being anticipated by Vinod et al. ("Video Shot Analysis using Efficient Multiple Object Tracking", V.V. Vinod and Hiroshi Murase, NTT Basic Research Labs, 3-1 Morinosato-Wakamiya Atsugi-shi, Kanagawa, 243-01 Japan, IEEE, April 1991) (Vinod). Applicant respectfully traverses the rejection.

The arguments presented above and in Applicant's May 25, 2004 response with respect to the rejection under 35 U.S.C. §102 by the Examiner are hereby incorporated by reference. In summary, the Examiner conceded that Vinod does not teach the ability to obtain a trajectory of a first object having the same trajectory of at least one other object. However, the Examiner alleged that "Inherently, one skilled in the art can analyze this trajectory map obtain information such as how many objects are moving, which ones start and/or end at the same positions, which ones have the same/different trajectories, etc." (Final Office Action, page 4)

Vinod fails to disclose "determining a route comprising a trajectory of a first object having the same trajectory of at least one other object" as recited in claim 1 or "determining spatial patterns from said extracted motion information, where said spatial patterns comprise a route determined from said trajectory common to at least two objects" as recited in claim 16. Therefore, claims 1, 3-8, 10, 14, 16, 17, and 19-21 are patentable over the cited reference.

III. Rejection of claims 9, 15, 18, and 22-25 under 35 USC § 103**A. Claim 9**

Claim 9 stands rejected under 35 USC § 103(a) as being obvious over Vinod in view of Weil et al. (U.S. Patent No. 6,177,885, issued January 23, 2001) (Weil). Applicant respectfully disagrees.

The arguments presented above in Sections I and II and in Applicant's May 25, 2004 response with respect to the rejection under 35 U.S.C. §103 by the Examiner are hereby incorporated by reference. In summary, Vinod fails to disclose "determining a route comprising a trajectory of a first object having the same trajectory of at least one other object", as positively recited by the Applicant in claim 1. Weil teaches a traffic

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incident detection system that includes both the collection and analysis of traffic data and employs a time-indexed traffic anomaly detection algorithm which partitions time into categories of "type of day," and "time of day". Using this partition, a fuzzy neuromorphic, unsupervised learning algorithm calibrates fuzzy sets as "normal" and "abnormal" for a plurality of traffic descriptors. (Well, Abstract)

None of the references cited by the Examiner discloses "determining a route comprising a trajectory of a first object having the same trajectory of at least one other object". As such, any combination of the cited references will lack this teaching. Therefore, claim 9 is patentable over the cited references.

B. Claims 15, 18, and 22-25

Claims 15, 18, and 22-25 stand rejected under 35 USC § 103(a) as being obvious over Vinod in view of Cheng et al. ("Querying Video Contents by Motion Example", Pu-Jien Cheng and Wei-Pang Yang, Department of Computer and Information Science, National Chiao Tung University, Hsinchin, Taiwan, R.O.C., IEEE, May 2000. Applicant respectfully disagrees.

The arguments presented above in Sections I and II and in Applicant's May 25, 2004 response with respect to the rejection under 35 U.S.C. §103 by the Examiner are hereby incorporated by reference. Applicant again asserts that Cheng does not qualify as prior art.

IV. Allowable Subject Matter

Applicant acknowledges that Claims 11-13 are allowed.

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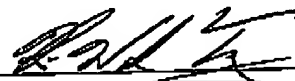
Conclusion

Thus, the Applicant submits that all of these claims now fully satisfy the requirements of 35 U.S.C. §102 and 35 U.S.C. §103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

10/18/04
Date


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